Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) A method for finding in a larger system, components or subsystems that meet a predefined set of requirements, through the use of rule-based searches and block diagrams, the method comprising:

    selecting a first block from a block design of a system, where the block design comprises a plurality of blocks, each block representing a component or subsystem of the block design;

    submitting a search query to a database of objects for researching which component or subsystem to use for the first block;

    receiving an answer set from the database of objects that satisfies the search query, where the answer set comprises at least one object from the database of objects;

    assigning at least one candidate object from the answer set to the first block in the block design; and

    repeating the steps of selecting, submitting, receiving, and assigning for at least one other block in the block design.

2. (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 1, wherein the step of assigning is automatic if the answer set contains exactly one object.

3. (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 1, wherein the step of repeating is repeated for all remaining blocks in the block design.

4.   (Original) The method for finding in a larger system, components or subsystems that

meet a predefined set of requirements from claim 1, wherein the step of assigning

comprises:

associating a candidate object from the answer set to the first block in the block

design; and

updating the block design by replacing the first block with a representation of the

candidate object.

5.   (Original) The method for finding in a larger system, components or subsystems that

meet a predefined set of requirements from claim 1, wherein the database of objects

comprises engineering designs and engineering components.

6.   (Original) The method for finding in a larger system, components or subsystems that

meet a predefined set of requirements from claim 1, wherein the database of objects

comprises technical papers.

7.   (Original) The method for finding in a larger system, components or subsystems that

meet a predefined set of requirements from claim 1, wherein the database of objects

comprises patent documents.

8.   (Original) The method for finding in a larger system, components or subsystems that

meet a predefined set of requirements from claim 1, wherein the database of objects

comprises software modules.

9.   (Original) A method for finding in a larger system, components or subsystems that

meet a predefined set of requirements, through the use of rule-based searches and

block diagrams comprising:

selecting a first generic description from a system design, where the system design comprises a plurality of generic descriptions, each generic description representing a component or subsystem of the system design;

submitting a search query to a database of objects for researching which component or subsystem to use for the first generic description;

receiving an answer set from the database of objects that satisfies the search query, where the answer set comprises at least one object from the database of objects;

assigning at least one candidate object from the answer set to the first generic description in the system design; and

repeating the steps of selecting, submitting, receiving, and assigning for at least one other generic description in the system design.

10.   (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 9, wherein the step of assigning is automatic if the answer set contains exactly one object.

11.   (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 9, wherein the step of repeating is repeated for all remaining blocks in the block design.

12.   (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 9, wherein the step of assigning comprises:

associating a candidate object from the answer set to the first block in the block design; and

updating the block design by replacing the first block with a representation of the candidate object.

13.   (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 9, wherein the database of objects comprises engineering designs and engineering components.

14.   (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 9, wherein the database of objects comprises technical papers.

15.   (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 9, wherein the database of objects comprises patent documents.

16.   (Original) The method for finding in a larger system, components or subsystems that meet a predefined set of requirements from claim 9, wherein the database of objects comprises software modules.

17.   (Original) A rule-based refinement tool, for finding in a larger system, components or subsystems that meet a predefined set of requirements, through the use of rule-based searches and block diagrams, comprising:

a database of objects, wherein the objects are related to components or subsystems;

a search engine which accepts a search query and executes the search query against the database of objects to determine which components or subsystems can be used for a generic description portion of a system design, which returns an answer set of at least one candidate object; and

an assignment processor for assigning at least one candidate object from the answer

set to the generic description in the system design.

18. (Original) The rule-based refinement tool from claim 17, further comprising a

drawing module which graphically presents the generic descriptions of the system

design as a series of blocks interconnected to form a block diagram.

19. (Original) The rule-based refinement tool from claim 18, further wherein the

assignment processor instructs the drawing module to graphically replace the generic

description with the candidate object.